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REMARKS:**I. Status of the Application.**

In the Office Action mailed August 18, 2006 (the "Office Action"): (1) claims 1, 6 – 7, and 10 – 12 were rejected as anticipated under Section 102(b) based on Prasad et al. U.S. Patent No. 4,934,148 ("Prasad" or the "Prasad reference") (Office Action page 2); (2) claims 13 and 16 – 17 were rejected as anticipated under Section 102(b) based on McClenny U.S. Patent No. 4,982,512 ("McClenny" or the "McClenny reference") (Office Action page 2); (3) claims 2 – 5 were rejected as obvious under Section 103(a) based on Prasad (Office Action page 3); (4) claims 8 – 9 were rejected as obvious under Section 103(a) based on Prasad in view of McClenny (Office Action page 3); (5) claims 14 – 15 were rejected as obvious under Section 103(a) based on McClenny (Office Action page 3); and (6) claim 19 was rejected as obvious under Section 103(a) based on McClenny in view of Jaynes et al. U.S. Patent Application Publication No. US 2002/0125591 ("Jaynes" or the "Jaynes reference") (Office Action pages 3 – 4). There was no discussion in the Office Action pertaining to claim 18.

Upon entry of this amendment, independent claims 1 and 13 have been amended to more distinctly point out and claim the invention, which specifically utilizes a nitrogen-depleted gas mixture to dry materials in a specific manner, and new claim 20 has been added. Support for the amendments may be found in paragraph 21 of the specification (as published). New claim 20 is based upon independent claim 13 and dependent claims 14 and 15, and no new matter has been introduced.

This amendment should provide clarification for the Patent Office which shows that the Prasad, McClenny, and Jaynes references are completely inapplicable to the present invention. In addition, the McClenny reference specifically teaches away from the claimed invention. These various references, therefore, alone or in combination, do not anticipate and do not render obvious the present invention as claimed.

II. The Patent Office Has Not Met Its Burden of Proving Anticipation or Obviousness and the Rejections Should Be Withdrawn

It is well-established law that the patent office must do more than present mere conclusions or cursory statements that some particular reference anticipates or

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renders obvious a claimed invention. Specifically, under 37 CFR Section 104(c), the Patent Office must specifically designate the “particular part” of a reference relied upon and the “pertinence of each reference ... must be clearly explained....”

A long history of CAFC and CCPA decisions specifically requires, for example, that to show anticipation or obviousness, the “corresponding elements disclosed in the allegedly anticipating reference” must be identified. *Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co.*, 730 F.2d 1452, 221 USPQ 481, 485 (Fed. Cir. 1984); *Connell v. Sears, Roebuck & Co.*, 722 F.2d 1542, 220 USPQ 193 (Fed. Cir. 1983).

The USPTO has not followed its own required procedures and therefore has not met its burden of presenting a prima facie case of anticipation or obviousness. The Office Action provided merely conclusory statements and failed to indicate any parts of any of the cited references which purportedly show anticipation or obviousness. The Applicant has been left in the untenable position of literally trying to guess what is the supposed substance of the rejections from the Patent Office. Accordingly, the Patent Office should withdraw the rejections of the claims under Sections 102 and 103.

III. The Rejections Under 35 U.S.C. §102 and §103 Should Be Withdrawn:

The cited references do not pertain to the subject matter of the claimed invention, which concerns drying solid materials, using a specific nitrogen-depleted mixture of gas to remove moisture from the material. By having removed nitrogen selectively from atmospheric air, in accordance with the invention, the resulting nitrogen-depleted gas mixture not only has increased percentage levels of oxygen as claimed, but also correspondingly increased percentage levels of carbon dioxide, hydrogen, the noble gases, and any gaseous impurities. Accordingly, this is a different gas mixture than what could be created by adding purified oxygen to air, as that resulting mixture would not have correspondingly increased percentage levels of these other gases. Specification, paragraphs 20, 21, 24, 34.

For a simplified numerical example, assuming ordinary air to comprise 78% nitrogen, 21% oxygen, and 1% other gases such as carbon dioxide (specification paragraph 24), removing 50% of the nitrogen would result in a gas mixture of approximately 39% nitrogen, 67.77% oxygen, and 3.23% other gases. In contrast, if the

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same amount of pure oxygen were added to the original air mixture, the overall percentage oxygen level would increase substantially, but there would be a substantially different percentage of nitrogen remaining and substantially decreased (rather than increased) percentages of other gases in the resulting mixture, such as 0.5 % of these other gases.

It is respectfully submitted that none of the prior art references disclose or suggest any such use of a nitrogen-depleted gas mixture, created by selectively removing a portion of nitrogen from atmospheric air, to remove water from solid materials, as claimed in the present invention.

The Prasad reference is concerned with the cryogenic separation of oxygen and nitrogen from air, and is not concerned with the removal of water from solid materials using the nitrogen-depleted gas mixture, which is the subject of the present invention. Thus, the "dryer" referred to in Prasad uses a molecular sieve to remove moisture from the compressed air supplied to it, prior to the dried air then being supplied to the cryogenic separator. The dryer in Prasad does not remove moisture from a material within the dryer using a specifically nitrogen-depleted gas mixture, which moisture is then carried out of the dryer by the circulating nitrogen-depleted gas mixture as is the case with the claimed invention. The patent office will perhaps appreciate that the differences between the dryer of Prasad and the present invention are significant: (1) in Prasad, the air at the outlet of the dryer is drier than that at the inlet; (2) in the present application, the nitrogen-depleted gas mixture at the outlet is "wetter", having been used to absorb water from the material.

Many other claimed features of the present invention are not disclosed and are not suggested by the Prasad reference. The system described in Prasad does not include a heater, as claimed in the present invention; this is not surprising, as the Prasad reference is concerned with *cryogenic* gas separation. If for some reason the patent office were considering the compressor in Prasad to somehow function as a heater (as a by-product of gas compression), the claimed structure of the present invention is also quite different, because the purge gas in Prasad is never fed back to the compressor, but only the dryer. The present invention, on the other hand, specifically requires that a first portion of the used nitrogen-depleted gas mixture to be returned from the outlet of the

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dryer back to the heater. In addition, the Prasad adsorption system also is not a dryer, as it removes contaminants, not moisture, from the compressed air; in contrast, in the claimed invention, the dryer removes moisture from the solid material within the dryer using the nitrogen-depleted gas mixture.

The McClenny reference also does not disclose and does not suggest the present invention, and specifically teaches away from the present invention. McClenny is concerned with the removal of organic solvents, not water, from magnetic tapes during their manufacture, followed by the recovery of the solvents. The McClenny reference utilizes pure nitrogen as the drying gas, not a gas mixture of atmospheric air from which a portion of nitrogen has been removed, *i.e.*, not a nitrogen-depleted gas mixture of the present invention. In McClenny, an oven is utilized to extract organic solvents; whereas the dryer of the present invention is adapted to extract moisture, *i.e.*, water.

With respect to the dependent claims 2 – 5, the recited percentages are not simply a matter of design choice. As explained in the specification, the removal of nitrogen from atmospheric air, resulting in the claimed nitrogen-depleted gas mixture, provides an improved ability of the circulating drying gas mixture to extract moisture from the material in the dryer. No such teaching can be found in either the Prasad or McClenny references.

With reference to claims 8 and 9, neither Prasad nor McClenny teach the removal of nitrogen from atmospheric air to create a nitrogen-depleted gas mixture which will then be utilized for extracting moisture from a solid material. Accordingly, these claims cannot be considered obvious in light of the Prasad and McClenny references. Indeed, McClenny specifically uses pure nitrogen for the circulating gas. In addition, the molecular sieve of McClenny is used to extract organic solvents from the circulating nitrogen gas, not to reduce the amount of nitrogen to create a new mixture for a circulating gas.

Similarly, with respect to other dependent claims such as 14 and 15, because McClenny utilizes pure nitrogen, it is contradictory for the patent office to suggest that it would be a matter of design choice to adjust the amount of nitrogen removed from composition of the circulating gas. For example, there would be no circulating gas left in McClenny if nitrogen were removed from the circulating gas.

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Accordingly, the McClenny reference specifically teaches away from the present invention: the present invention utilizes a nitrogen-depleted gas mixture, while McClenny utilizes the opposite, namely, pure nitrogen. Such teaching away is the antithesis of art suggesting that a person of ordinary skill go in the claimed direction. See *In re Fine*, 873 F.2d 1071 (Fed. Cir. 1988). This teaching away from Applicants' invention is a *per se* demonstration of lack of obviousness and a lack of anticipation.

More specifically, neither Prasad nor McClenny disclose or suggest the claimed elements of the present invention, such as: (1) removing moisture from a material in a dryer, in which (2) the drying gas is specifically a nitrogen-depleted atmospheric air mixture, which (3) is heated and fed to a dryer where moisture is extracted from a solid material, and (4) where a portion of the nitrogen-depleted drying gas mixture is recirculated back to the heater.

The Jaynes reference, cited with respect to dependent claim 19, is also inapplicable to the present invention. The Jaynes reference concerns the creation of an atomized powder, not the removal of moisture from a material using a nitrogen-depleted gas mixture. Accordingly, the McClenny and Jaynes references, alone or in combination, also do not disclose and do not suggest the present invention.

In addition, there is no motivation to combine the Prasad, McClenny, and Jaynes references. The mere fact that the references could be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680 (Fed. Cir. 1990). In addition, identification of any individual part claimed is insufficient to defeat patentability of the whole claimed invention. See *In re Kotzab*, 217 F.3d 1365 (Fed. Cir. 2000). Accordingly, no *prima facie* showing of potential anticipation or obviousness has been made, and any assertions to the contrary have been clearly rebutted. *In re Rouffet*, 149 F.3d 1350 (Fed. Cir. 1998); *In re Mills*, 916 F.2d 680 (Fed. Cir. 1990). The rejection of independent claims 1 and 13 as anticipated under Section 102 and as obvious under Section 103), therefore, should be withdrawn.

The present invention, therefore, is not anticipated and is not rendered obvious by the Prasad, McClenny, and Jaynes references under Sections 102 and 103, and the rejection of the claims should be withdrawn. In addition, because the remaining

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dependent claims incorporate by reference all of the limitations of the corresponding independent claims, all of the dependent claims are also allowable over the cited reference. The new independent claim 20, derived from the independent claims and various dependent claims, is also allowable as indicated in the Office Action.

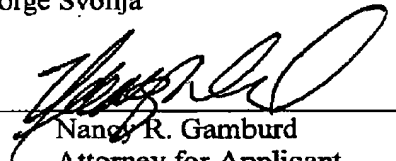
On the basis of the above amendments and remarks, reconsideration and allowance of the application is believed to be warranted, and an early action toward that end is respectfully solicited. In addition, for any issues or concerns, the Examiner is invited to call the attorney for the Applicants at the telephone number provided below.

Respectfully submitted,

George Svonja

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By



Nancy R. Gamburd

Attorney for Applicant

Registration No. 38,147

Phone: 312-876-0460

Cell: 312-399-9332

Cell: 408-429-3310

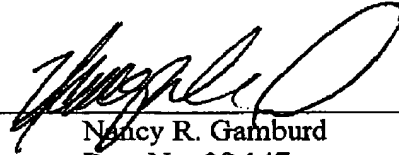
Fax: 312-276-4176

ngamburd@gamburdlaw.com

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CERTIFICATE OF FACSIMILE TRANSMISSION

I hereby certify that the foregoing Amendment And Response Under 37 CFR 1.111 and 1.115 (12 pages), Transmittal (PTO/SB/21) (1 page), Fee Transmittal (PTO/SB/17) (1 page), Patent Application Fee Determination Record (PTO/SB/06) (1 page), and Petition for Extension of Time (PTO/SB/22) (2 pages, original plus 1 copy) (17 pages total), for George Svonja, Serial No. 10/518,864, entitled "Method and Apparatus for Drying", have been transmitted by facsimile to the US Patent and Trademark Office to fax number (571) 273-8300 (Centralized Facsimile Number), on February 17, 2007.



Nancy R. Gamburd
Reg. No. 38,147